

AMENDMENTS TO THE CLAIMS

Please amend the claims of the present application as set forth below.

In accordance with the PTO's revised amendment format, a detailed listing of all claims has been provided. A status identifier is provided for each claim in a

5 parenthetical expression following each claim number. Changes to the claims are shown by strikethrough (for deleted matter) or underlining (for added matter).

Claim History Summary:

10 Claim 1 was originally filed.
Claim 1 was rejected (OA 04/07/04).

Claim Summary of Present Response:

15 Claim 1 is currently amended.
Claims 2-10 are new.
Claims 1-10 are pending.

Detailed Listing of All Claims 1-10:

Claim 1 (Currently Amended). A heat exchanger comprising:
a core member including:
a plurality of hot-side fluid or gas transport passages for
5 accommodating passage of a first fluid or gas therein;
a plurality of cold-side fluid or gas transport passages for
accommodating passage of a second fluid or gas therein that is provided at a
temperature less than that of the first fluid or gas, the hot-side and cold-side
fluid or gas transport passages being in contact with one another to permit
10 conductive heat transfer;
manifolds connected to ends of the hot-side and cold-side fluid or gas
passages to direct and receive the first and second fluids or gases into and
from the respective hot-side and cold-side fluid or gas transport passages;
a flow director disposed within integral to one of the manifolds to change
15 the flow direction of the first or second fluid or gas passing therethrough
wherein the flow director allows for flow of the fluid or gas along a centerline of
an opening of the manifold and comprises at least two members disposed at
non-orthogonal angles to the centerline.

20 Claim 2 (New). The heat exchanger of claim 1 wherein the manifold
comprising the flow director comprises a length and a width and wherein the at
least two members disposed at non-orthogonal angles to the centerline direct
the fluid or gas substantially lengthwise in the manifold.

25 Claim 3 (New). The heat exchanger of claim 1 wherein the at least two
members comprise bars that act to reduce localized stress concentrations of
the manifold proximate to the opening.

Claim 4 (New). The heat exchanger of claim 1 wherein the flow director is
30 integral to the manifold via welding.

Claim 5 (New). The heat exchanger of claim 1 wherein the manifold comprises two or more openings wherein each opening receives one of the first and second fluids or gases into the heat exchanger or allows one of the first and second fluids or gases to exit the heat exchanger.

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Claim 6 (New). The heat exchanger of claim 1 wherein the manifold comprising the flow director comprises a dividing wall to divide the manifold into two fluid or gas portions.

10 Claim 7 (New). The heat exchanger of claim 6 wherein one or more members of the flow diverter extend from the dividing plate to an opposing wall of the manifold.

Claim 8 (New). A manifold for a heat exchanger comprising:

15 a dividing wall to divide the manifold into a first fluid or gas portion and a second fluid or gas portion;
a first opening associated with the first fluid or gas portion;
a second opening associated with the second fluid or gas portion; and
a flow director integral to the manifold that allows for flow of fluid or gas
20 along a centerline of one of the openings and comprises at least two members disposed at non-orthogonal angles to the centerline.

Claim 9 (New). The manifold of claim 8 wherein the at least two members comprise bars that act to reduce localized stress concentrations of the manifold
25 proximate to the opening.

Claim 10 (New). The manifold of claim 8 wherein one or more members of the flow diverter extend from the dividing wall to an opposing wall of the manifold.

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